

## ABSTRACT

Autoinducer molecules, e.g., N-(3-oxododecanoyl)homoserine lactone, for *Pseudomonas aeruginosa* are described. The molecules regulate gene expression in the bacterium. Therapeutic compositions and therapeutic methods involving analogs and/or inhibitors of the autoinducer molecules also are described. The molecules are useful for treating or preventing infection by *Pseudomonas aeruginosa*.